

IN THE CLAIMS

Please cancel claims 2 and 12. Please amend claim 11 as set forth below.

1. (Original) A cardiac rhythm management device, comprising:
 - an atrial sensing channel for generating atrial electrogram signals;
 - circuitry for detecting atrial senses when the atrial electrogram signal exceeds a specified threshold;
 - circuitry for measuring a time interval between successive atrial senses and for detecting a premature atrial contraction when the time interval meets a specified criterion;
 - a ventricular pacing channel for delivering pacing pulses to a ventricle; and,
 - circuitry for causing a ventricular pace to be delivered only when a premature atrial contraction is detected, wherein the ventricular pace is delivered at a specified AV interval following the premature atrial contraction.
2. (Cancelled)
3. (Original) The device of claim 1 wherein the specified AV interval is a late-pace value.
4. (Original) The device of claim 1 wherein the specified AV interval is an early-pace value.
5. (Original) The device of claim 4 wherein the AV interval is constrained so that the ventricular pace is delivered after a specified minimum interval from the previous ventricular sense or ventricular pace.

6. (Original) A cardiac rhythm management device, comprising:

- an atrial sensing channel for generating atrial electrogram signals;
- circuitry for detecting atrial senses when the atrial electrogram signal exceeds a specified threshold;
- circuitry for measuring a time interval between successive atrial senses and for detecting a premature atrial contraction when the time interval meets a specified criterion;
- a ventricular pacing channel for delivering pacing pulses to a ventricle;
- circuitry for causing a ventricular pace to be delivered in accordance with an atrial tracking bradycardia pacing mode such that a ventricular pace is delivered at a specified AV interval following an atrial sense;
- circuitry for modifying the AV interval when a premature atrial contraction is detected.

7. (Original) The device of claim 6 wherein the AV interval is modified to a late-pace value when a premature atrial contraction is detected.

8. (Original) The device of claim 6 wherein the AV interval is modified to an early-pace value when a premature atrial contraction is detected.

9. (Original) The device of claim 8 wherein the AV interval is constrained so that the ventricular pace is delivered after a specified minimum interval from the previous sensed or paced ventricular beat.

10. (Original) The device of claim 6 wherein the bradycardia pacing mode includes AV sequential pacing.

11. (Currently Amended) A method for operating a cardiac rhythm management device, comprising:

- detecting an atrial sense when an atrial electrogram signal exceeds a specified threshold;
- measuring a time interval between successive atrial senses and detecting a premature atrial contraction when the time interval meets a specified criterion;

delivering a pacing pulse to a ventricle only when a premature atrial contraction is detected, wherein the ventricular pace is delivered at a specified AV interval following the premature atrial contraction.

12. (Cancelled)

13. (Original) The method of claim 11 wherein the specified AV interval is a late-pace value.

14. (Original) The method of claim 11 wherein the specified AV interval is an early-pace value.

15. (Original) The method of claim 14 wherein the AV interval is constrained so that the ventricular pace is delivered after a specified minimum interval from the previous ventricular sense or ventricular pace.

16. (Original) A method for operating a cardiac rhythm management device, comprising:

detecting an atrial sense when an atrial electrogram signal exceeds a specified threshold;

measuring a time interval between successive atrial senses and detecting a premature atrial contraction when the time interval meets a specified criterion;

delivering pacing pulses to a ventricle in accordance with an atrial tracking bradycardia pacing mode such that a ventricular pace is delivered at a specified AV interval following an atrial sense; and,

modifying the AV interval when a premature atrial contraction is detected.

17. (Original) The method of claim 16 wherein the AV interval is modified to a late-pace value when a premature atrial contraction is detected.

18. (Original) The method of claim 16 wherein the AV interval is modified to an early-pace value when a premature atrial contraction is detected.

19. (Original) The method of claim 18 wherein the AV interval is constrained so that the ventricular pace is delivered after a specified minimum interval from the previous sensed or paced ventricular beat.
20. (Original) The method of claim 16 wherein the bradycardia pacing mode includes AV sequential pacing.